



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0997; Directorate Identifier 2012-NM-060-AD]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede an existing airworthiness directive (AD) that applies to certain Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, and Model CL-600-2D24 (Regional Jet Series 900) airplanes. The existing AD currently requires repetitive inspections of the rudder travel limiter (RTL) return springs and primary actuator, and corrective actions if necessary. Since we issued that AD, terminating action has been developed which eliminates the need for the repetitive inspections. This proposed AD would require replacing certain RTL return springs, including doing related investigative and corrective actions, if necessary; and would also revise the applicability. We are proposing this AD to prevent failure of the RTL, which would permit an increase of rudder authority beyond normal structural limits and consequently affect the controllability of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the

regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7318; fax (516) 794-5531.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0997; Directorate Identifier 2012-NM-060-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On January 25, 2011, we issued AD 2011-03-13, Amendment 39-16597 (76 FR 6539, February 7, 2011). That AD required actions intended to address an unsafe condition on the products listed above.

Since we issued AD 2011-03-13, Amendment 39-16597 (76 FR 6539, February 7, 2011), Transport Canada Civil Aviation (TCCA), which is the airworthiness authority for Canada, has issued Canadian Airworthiness Directive CF-2010-18R1, dated March 19, 2012 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

Rudder Travel Limiter (RTL) return spring, part number (P/N) E0650-069-2750S, failed prior to completion of the required endurance test. In addition, the replacement RTL return spring, P/N 670-93465-1 (see Note) was found to be susceptible to chafing on the primary actuator, which could also result in eventual dormant spring failure. There are two return springs in the RTL and if both springs failed, a subsequent mechanical disconnect of the RTL components would result in an unannounced failure of the RTL. This, in turn, would permit an increase of rudder authority beyond normal structural limits and, in the event of a strong rudder input, the controllability of the aeroplane could be affected.

Note: RTL return springs, P/N 670-93465-1, were installed in production aeroplanes serial number 10266 (CL-600-2C10) and 15182 (CL-600-2D24) respectively and were introduced in-service by [Bombardier] Service Bulletin (SB) 670BA-27-047. [Bombardier] SB 670BA-27-047 has since been superseded by [Bombardier] SB 670BA-27-055.

This [TCCA] AD mandates repetitive [detailed] visual inspection of the RTL [for broken] return springs and [damage through the casing or chafing of the casing of the] primary actuator, [and] replacement of parts as necessary.

This revision mandates the installation of the RTL return spring, P/N BA670-93468-1, as a terminating action to this [TCCA] AD.

This proposed AD would expand the applicability by adding Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplane, serial number 10002. This proposed AD would also reduce the applicability by removing Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes serial numbers 10334 and subsequent; and also removes Model CL-600-2D15, serial numbers 15289 and subsequent. The installation consists of replacing certain RTL return springs with new springs and doing related investigative and corrective actions, if necessary. The related investigative action is a detailed inspection of the casing of the primary actuator for signs of chafing or missing paint. Corrective actions include replacing any broken return spring with a new spring, repairing any chafing of the primary actuator on its casing, and replacing any primary actuator that has damage through its casing with a new actuator. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Bombardier, Inc. has issued Service Bulletin 670BA-27-059, Revision A, dated March 8, 2012. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in

the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 366 products of U.S. registry.

The actions that are required by AD 2011-03-13, Amendment 39-16597 (76 FR 6539, February 7, 2011), and retained in this proposed AD take about 2 work-hours per product, at an average labor rate of \$85 per work hour. Based on these figures, the estimated cost of the currently required actions is \$170 per product.

We estimate that it would take about 8 work-hours per product to comply with the new basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$1,291 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$721,386, or \$1,971 per product.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

“Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2011-03-13, Amendment 39-16597 (76 FR 6539, February 7, 2011), and adding the following new AD:

Bombardier, Inc.: Docket No. FAA-2012-0997; Directorate Identifier 2012-NM-060-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2011-03-13, Amendment 39-16597 (76 FR 6539, February 7, 2011).

(c) Applicability

This AD applies to the Bombardier, Inc. airplanes identified in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category.

(1) Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, serial numbers 10002 through 10333 inclusive.

(2) Model CL-600-2D15 (Regional Jet Series 705) airplanes; and Model CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15001 through 15288 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight controls

(e) Reason

This AD was prompted by reports of failure of the rudder travel limiter (RTL) return spring. We are issuing this AD to prevent failure of the RTL, which would permit an increase of rudder authority beyond normal structural limits and consequently affect the controllability of the airplane.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Retained Initial Inspections and Replacement/Repair for Certain Airplanes

This paragraph restates the requirements of paragraph (g) of AD 2011-03-13, Amendment 39-16597 (76 FR 6539, February 7, 2011). Except for Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplane, serial number 10002, for airplanes that

have accumulated 4,000 or less total flight hours as of March 14, 2011 (the effective date of AD 2011-03-13): Before the accumulation of 6,000 total flight hours, do a detailed inspection of the RTL for broken return springs and damage through the casing, or chafing of the casing of the primary actuator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-055, Revision A, dated August 6, 2010. Before further flight, replace any broken return springs with new springs, and repair or replace with a new actuator any chafed or damaged primary actuator, as applicable, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-055, Revision A, dated August 6, 2010. Repeat the inspection thereafter at intervals not to exceed 6,000 flight hours. Accomplishment of the actions required by paragraph (j) of this AD terminates the requirements of this paragraph.

(h) Retained Initial Inspections and Replacement/Repair for Certain Higher Flight Time Airplanes

This paragraph restates the requirements of paragraph (h) of AD 2011-03-13, Amendment 39-16597 (76 FR 6539, February 7, 2011). Except for Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplane, serial number 10002, for airplanes that have accumulated more than 4,000 total flight hours as of March 14, 2011 (the effective date of AD 2011-03-13): Within 2,000 flight hours after March 14, 2011 (the effective date of AD 2011-03-13), do a detailed inspection of the RTL for broken return springs and damage through the casing, or chafing of the casing of the primary actuator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-055, Revision A, dated August 6, 2010. Before further flight, replace any broken return springs with new springs, and repair or replace any chafed or damaged

primary actuator with a new actuator, as applicable, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-055, Revision A, dated August 6, 2010. Repeat the inspection thereafter at intervals not to exceed 6,000 flight hours. Accomplishment of the actions required by paragraph (j) of this AD terminates the requirements of this paragraph.

(i) New RTL Spring Inspection and Replacement for a Certain Airplane

For Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplane, serial number 10002, at the applicable time specified in paragraph (i)(1) or (i)(2) of this AD: Do a detailed inspection of the RTL for broken return springs and damage through the casing, or chafing of the casing of the primary actuator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-055, Revision A, dated August 6, 2010. Before further flight, replace any broken return springs with new springs, and repair or replace with a new actuator any chafed or damaged primary actuator, as applicable, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-055, Revision A, dated August 6, 2010. Repeat the inspection thereafter at intervals not to exceed 6,000 flight hours. Accomplishment of the applicable actions required by paragraph (j) of this AD terminates the requirements of this paragraph.

(1) If the airplane has accumulated 4,000 or less total flight hours as of the effective date of this AD: Before the accumulation of 6,000 total flight hours.

(2) If the airplane has accumulated more than 4,000 total flight hours as of the effective date of this AD: Within 2,000 flight hours after the effective date of this AD.

(j) New RTL Spring Replacement

At the applicable time specified in paragraph (j)(1) or (j)(2) of this AD: Replace the RTL return springs with new springs, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-059, Revision A, dated March 8, 2012. Do all applicable related investigative and corrective actions before further flight. Accomplishment of the applicable actions required by this paragraph terminates the requirements of paragraphs (g), (h), and (i) of this AD.

(1) For airplanes with RTL return springs having part number (P/N) 670-93465-1: Within 6,000 flight cycles after the effective date of this AD.

(2) For airplanes with RTL return springs having P/N E0650-069-2750S: At the applicable time specified in paragraph (j)(2)(i), (j)(2)(ii), or (j)(2)(iii) of this AD.

(i) For airplanes with 15,400 total flight cycles or more as of the effective date of this AD: Within 2,000 flight cycles after the effective date of this AD.

(ii) For airplanes with 5,200 total flight cycles or more, but less than 15,400 total flight cycles as of the effective date of this AD: Within 5,000 flight cycles after the effective date of this AD, but not to exceed 17,400 total flight cycles.

(iii) For airplanes with less than 5,200 total flight cycles as of the effective date of this AD: Before accumulating 10,200 total flight cycles.

(k) Credit for Previous Actions

(1) This paragraph provides credit for the actions required by paragraphs (g) and (h) of this AD, if those actions were performed before March 14, 2011 (the effective date

of AD 2011-03-13, Amendment 39-16597 (76 FR 6539, February 7, 2011)), using Bombardier Service Bulletin 670BA-27-055, dated May 11, 2010, which is not incorporated by reference in this AD.

(2) This paragraph provides credit for the actions required by paragraph (j) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 670BA-27-059, dated October 12, 2011, which is not incorporated by reference in this AD.

(l) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD. AMOCs approved previously in accordance with AD 2011-03-13, Amendment 39-16597 (76 FR 6539, February 7, 2011), are approved as AMOCs for this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved.

Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(m) Related Information

(1) Refer to MCAI Canadian Airworthiness Directive CF-2010-18R1, dated March 19, 2012, and the following service information, for related information.

(i) Bombardier Service Bulletin 670BA-27-059, Revision A, dated March 8, 2012.

(ii) Bombardier Service Bulletin 670BA-27-055, Revision A, dated August 6, 2010.

(2) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on September 11, 2012.

Ali Bahrami,
Manager,

Transport Airplane Directorate,
Aircraft Certification Service.

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